

Algebraic Reasoning

Name: _____

Per: _____

POINTS: _____

Classwork #19 Quiz

Be sure to include your work when appropriate.

Describe the transformation of the quadratic parent function, $f(x) = x^2$ that will result in the graph of the quadratic function given.

1. $h(x) = (2x - 1)^2$

2. $h(x) = -\frac{3}{4}(x - 6)^2 + 3$

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Identify the domain, range, x-intercept and y-intercept of the cubic function described by the equation shown below. Write the domain and range as intervals, and in set builder notation.

3. $f(x) = 2\left(-\frac{1}{4}x + 2\right)^3 - 3$

Identify the domain, range, relative minimum, relative maximum, x-intercept and y-intercept of the cubic function described by the equation shown below. Write the domain and range as intervals, and in set builder notation.

4. $f(x) = (x - 4)(x + 2)(3x + 1)$

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